

Application No. 10/538,718  
Amendment dated June 15, 2011  
Reply to Office Action of March 10, 2010

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) An abutment for a tooth implant with a root section or shaft that can be anchored in a jaw, and onto the coronal area of which the abutment can be fixed, wherein ~~the~~ each abutment is ~~part of a cap and is chosen from~~ at least one set of pre-fabricated abutments which are also caps and, which differ in form and each of which is adapted to a natural form of a tooth.
2. (Currently Amended) The abutment as claimed in claim 1, further comprising several sets of differing size or shaped abutments ~~with differing abutments~~ each abutment adapted to the natural form of a tooth, whereby the abutments vary in size from set to set.
3. (Currently Amended) The abutment as claimed in claim 1, wherein ~~characterized in that~~ the each abutment corresponds to the reduced natural form of a front tooth, a premolar or a molar.
4. (Currently Amended) The abutment as claimed in claim 1, wherein the ~~abutment~~ set of pre-fabricated abutments has a reduced number of abutments with different forms~~[[,]]~~ ~~only abutments~~ that correspond to the reduced natural form of a front tooth, a premolar or a molar.

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5. (Currently Amended) The abutment as claimed in claim 1, wherein the abutments ~~in comparison with the natural tooth form~~ are smaller than the natural tooth by a dimension that is less than or equal to the wall thickness of a further structure to be provided on the abutment.

6. (Previously Presented) The abutment as claim 1, wherein an outer contour of the respective abutment as compared with an outer contour of the form a natural tooth is reduced by approximately 0.1 to 2.5 mm.

7. (Previously Presented) The abutment as claimed in claim 1, wherein the abutment is made of aluminum oxide, zircon oxide, metal or a high-strength material.

8. (Previously Presented) The abutment as claimed in claim 7, wherein the abutment made of aluminum oxide has a wall thickness of at least 0.2 to 1.2 mm.

9. (Previously Presented) The abutment as claimed in claim 7, wherein abutment made of zircon oxide has a wall thickness of at least 0.15 to 0.8 mm.

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10. (Currently Amended) The abutment as claimed in claim 1, wherein ~~[[a]]~~ the coronal area of the ~~implant~~ shaft of the tooth implant consists of a bar or a bar-like projection and that the abutment has a recess adapted to the form of the bar.

11. (Currently Amended) The abutment as claimed in claim 1, wherein the abutment is pre-treated on a surface to be connected with an implant shaft for optimization of ~~the~~ an adhesive bond, by means of mechanical roughening, etching and/or coating with an active layer reacting with a bonding agent of the adhesive bond.

12. (Previously Presented) The abutment as claimed in claim 11, further comprising a protective layer for covering the surface-treated layer.

13. (Currently Amended) The abutment as claimed in claim 1, wherein ~~the~~ a portion of the surface of the abutment is ~~able to be~~ etched on a surface for an adhesive bond with the implant shaft, the shaft is an etchable surface layer composed of silicon oxide.

14. (Currently Amended) The abutment as claimed in claim 1, wherein the abutment is a ~~basis~~ base for an additional structure.

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15. (Currently Amended) The abutment as claimed in claim 14, wherein the abutment is the ~~basis~~ base for a crown with a shell forming an outer surface of the crown burned, cast or sintered onto the abutment.

16. (Currently Amended) The abutment as claimed in claim 14, wherein the abutment is the ~~basis~~ base for a separately manufactured structure, the structure is a shell, crown, a bridge element, a telescope or bar.

17. (Previously Presented) The abutment as claimed in claim 1, wherein the abutment is a compensating cap with a truncated cone-shaped coronal area, a shell surface of which is asymmetric to a longitudinal implant axis such that the shell surface has a different conical shape at two areas opposing the longitudinal implant axis.

18. (Cancelled)

19. (Previously Presented) The abutment as claimed in claim 1, wherein an axis of the abutment forms an angle with the longitudinal axis of the implant or of the root shaft, the angle up to approximately 20°.

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20. (Currently Amended) The abutment as claimed in claim 1, wherein ~~a basis or stage of the~~  
base of the abutment has a garland-shaped course and that a lowest point of this course is  
~~buccal labial and lingual palatinal~~ garland shape.

21. (Currently Amended) The abutment as claimed in claim 20, wherein ~~the buccal labial~~  
~~distance between the lowest point of the garland-shaped course to the tip of the abutment is~~  
~~different from the corresponding palatinal lingual distance~~ each abutment of the set in the  
buccal area has different curvature radiuses in the mesial distal direction and labio/lingual-  
palatinal regions than the remaining abutments in the set of abutments.

22. (Currently Amended) The abutment as claimed in claim 1, wherein on an outer surface of  
a base part of the abutment and/or on the outer surface of the coronal part of the shaft ~~there~~  
is a protective layer or protective sleeve covering these surfaces.

23. (Previously Presented) The abutment as claimed in claim 1, wherein the abutment and/or  
shaft is provided with growth factors and/or substances to accelerate healing, the growth  
factors are bacteriocidal or bacteriostatic agents, or medications.

24. (Cancelled)

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25. (Previously Presented) The abutment as claimed in claim 1, wherein an outer form of the abutment is stylized and has straight surfaces and rounded edges and is schematically equivalent, with a reduction to a greater or lesser extent, to the tooth to be replaced.

26. (Previously Presented) The abutment as claimed in claim 1, wherein there is an absolute or relative height difference between the premolar and molar cusps and a garland-shaped base and stage in an upper jaw/lower jaw.

27. (Cancelled)

28. (Currently Amended) The abutment as claimed in claim 1, wherein each of the abutments is provided with a base, and further wherein an outer form of the base of the abutment is straight, convex, concave, parallel, diverging, converging to the soft tissue.

29. (Previously Presented) The abutment as claimed in claim 1, wherein an outer abutment surface in the area of the body corresponds to the typical curvature characteristics of teeth.

30. (Cancelled)

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31. (Currently Amended) The abutment as claimed in claim 1, wherein there is a distance of 0.2 to 6 mm from a garland-shaped stage ~~and~~ of the abutment to a garland-shaped base bond surface to the implant.

32. (Currently Amended) The abutment as claimed in claim 1, wherein the cap is part of a cap set, which includes at least the following caps, all of the lengths being in millimeters, each of said caps having a stage near a cap opening:

Tooth	Cap length	Mesio-distal diameter at <u>stage 12</u>	Labio-buccal-oral diameter at <u>stage 12</u>
Upper jaw			
Middle incisor	10.5 - 5.5	7.0 - 4.0	6.0 - 3.0
Side incisor	9.5 - 4.5	5 - 2.0	5.0 - 2.0
Canine	10.0 - 5.0	5.5 - 2.5	7.0 - 4
First premolar	8.5 - 3.5	5.0 - 2.0	8.0 - 4.0
Second premolar	8.5 - 3.5	5.0 - 2.0	8.0 - 4.0
First molar	7.5 - 2.5	8.0 - 5.0	10.0 - 6.0
Second molar	7.0 - 2.5	7.0 - 4.0	10.0 - 4.0
Third molar	6.5 - 2.5	6.5 - 2.5	9.5 - 4.0
Lower jaw			
Middle incisor	9.0 - 4.0	3.5 - 2.0	5.3 - 2.3
Side incisor	9.5 - 4.5	4.0 - 2.0	5.8 - 2.8
Canine	11.0 - 6.0	5.5 - 2.5	7.0 - 4.0
First premolar	8.0 - 3.5	5.0 - 2.0	6.5 - 3.5
Second premolar	8.5 - 3.0	5.0 - 2.0	7.5 - 4.0
First molar	7.0 - 2.5	9.0 - 6.0	9.0 - 5.0
Second molar	7.0 - 2.0	8.0 - 5.0	9.0 - 5.0
Third molar	7.0 - 2.5	7.5 - 4.5	9.0 - 5.0

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33. (Previously Presented) A tooth implant with a root section or shaft that can be anchored in a jaw by being screwed in and with an abutment that can be fixed by an adhesive bond on a coronal area of the shaft, wherein the abutment is by claim 1.

34. (Withdrawn) A process for manufacturing a dental prosthesis using an abutment wherein an abutment corresponding to the form of the tooth to be reconstructed is selected from the abutment set and that this abutment is then prepared and provided with a further structure.

35. (Withdrawn) The process as claimed in claim 34, wherein a shell forming the outer surface of the crown is applied, to the abutment forming the base of a crown.

36. (Withdrawn) The process as claimed in claim 34, further comprising an additional, separately manufactured structure is fixed to the abutment after preparation.

37. (Withdrawn) The process as claimed in claim 34, wherein the abutment is manufactured individually corresponding to a tooth to be reconstructed.